

REMARKS

Reconsideration is respectfully requested in view of any changes to the claims and the remarks herein. Please contact the undersigned to conduct a telephone interview in accordance with MPEP 713.01 to resolve any remaining requirements and/or issues prior to sending another Office Action. Relevant portions of MPEP 713.01 are included on the signature page of this amendment.

Claims 1-20 have been canceled without prejudice. Claim 48 has been amended to include a limitation from claim 50 and claim 41 has been amended to include a recitation from claim 46. Claim 57 has been amended to include a limitation from claim 50.

In paragraph 7 of page 5 of the Office Action the Examiner objects to claims 21-40 as being substantial duplicates of claims 1-20. Claims 1-20 have been cancelled and thus this objection is moot.

In paragraph 8 at page 5 of the Office Action claims 1-40 have been provisionally rejected under 35 U.S.C. 101 as claiming the same invention as claims 1-20 of copending Application No.: 10/128,838 now issued as U.S. Patent No.: 6,724,674.

Claims 21-40 are method claims. The claims of U.S. 6,724,674 are device claims, memory array claims and integrated circuit claims. Thus, claims 21-40 are not identical to the claims of U.S. 6,724,674. A method of operation of a device (memory array and integrated circuit claims) are patentable distinct from device claims, memory array claims and integrated circuit claims. They are classified in different classes. Thus the double patenting rejection of claims 21-40 is improper.

Claims 41-60 have been rejected under 35 U.S.C. 102(b) as being anticipated by Urner Wille et al. Urner Wille et al. states at Col. 1, line 55-56, "It is an object of the invention to provide a magneto optical memory of the type described above." Urner Wille et al. teaches at Col. 1, lines 23-25 that "a magneto-optical memory element...is

locally heated...by means of a focused laser beam." Urner Wille et al. teaches at Col. 3, lines 30-31 "Fig. 1 shows, schematically, a magneto-optical memory device" (Emphasis added). Urner Wille et al. teaches at Col. 3 lines 39-40 "The optical components necessary for writing (storing) and reading respectively are present on a second support plate 5." Thus, Urner Wille et al. teaches heating only using a laser which is not included in the memory device. Urner Wille et al. Urner Wille et al. teaches at Col. 4, lines 2-5 "The write/read unit can be moved to be directly above any desired point on the memory layer 4, whereupon it can write or read information there." The write/read unit 7 is a laser diode⁷ (see Col. 1, lines 44-47) which is not included in the memory layer 4 on substrate 3 (see Col. 1, lines 36-37) but is a separate unit. Applicants' claim 41 has been amended to recite "wherein the memory element is heated by passing a current through a conductor." (Claims 42-45 and 47 depend from claim 41.) Claim 48 has been amended to recite "heating elements for the memory elements are included in the devices extending across the array" (Claims 49, 51-56 and 60 depend from claim 48.) Claim 57 has been amended to recite "means for performing thermally-assisted switching of selected memory elements in the array said means comprises heating elements included in the devices extending across the array." Urner Wille et al. teaches heating with an external laser and does not teach use of conductor, does not teach use of "heating elements...included in the devices extending across the array." Thus Urner Wille et al. can not anticipate claims 41-60. For a reference to anticipate a claim the reference must teach every element of the claim. Therefore Applicants' respectfully request the rejection of claims 41-60 be withdrawn. In view of the changes to the claims and the remarks herein, the Examiner is respectfully requested to reconsider the above-identified application. If the Examiner wishes to discuss the application further, or if additional information would be required, the undersigned will cooperate fully to assist in the prosecution of this application.

The Examiner states at page 6 of the Office Action referring to Urner Willie et al., "wherein the heat and at least one magnetic field are applied to the memory element simultaneously (Col. 1, lines 30-32)" Col. 1, lines 30-32 of Urner Willie et al. teaches "After cooling the heated area of the layer, the coercive field strength must be sufficient

to stabilize the magnetically varied area of the layer (the domain)" Umer Willie et al. appears to teach applying the magnetic field after the heated area is cooled. The Examiner further states referring to Umer Willie et al. "heat is applied and removed before at least one magnetic field is applied to the memory element (Col. 4, lines 29-41)" Umer Willie et al. Col. 4, lines 29-41 does not state that heat is applied and removed before at least one magnetic field is applied. The Examiner further states referring to Umer Willie et al. "wherein the junction is heated by passing a current through a conductor (Col. 3, lines 49-54)". In Umer Willie et al., Col. 3, lines 49-54, there is no teaching of passing a current through a conductor. The Examiner further states referring to Umer Willie et al. "wherein first and second orthogonal fields (Figure 2)" Fig. 2 shows the magnetic field H in only one direction and thus does not show orthogonal fields.

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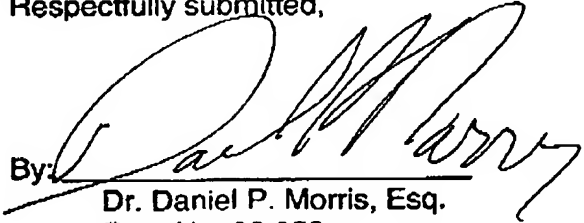
If the above-identified Examiner's Action is a final Action, and if the above-identified application will be abandoned without further action by applicants, applicants file a Notice of Appeal to the Board of Appeals and Interferences appealing the final rejection of the claims in the above-identified Examiner's Action. Please charge deposit account 09-0468 any fee necessary to enter such Notice of Appeal.

In the event that this amendment does not result in allowance of all such claims, the undersigned attorney respectfully requests a telephone interview at the Examiner's earliest convenience.

MPEP 713.01 states in part as follows:

Where the response to a first complete action includes a request for an interview or a telephone consultation to be initiated by the examiner, ... the examiner, as soon as he or she has considered the effect of the response, should grant such request if it appears that the interview or consultation would result in expediting the case to a final action.

Respectfully submitted,

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